

GenCore version 5.1.3
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OM nucleic - nucleic search, using sw model

Run on: December 2, 2002, 00:22:39 ; Search time 356.279 Seconds
(without alignments)
10713.895 Million cell updates/sec

Title: US-09-856-979-6
Perfect score: 1695
Sequence: 1 ccgcagatcctctgtgtga.....tccatcaagccgtgcgatg 1695

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2185239 seqs, 112599159 residues

Total number of hits satisfying chosen parameters: 4370478

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_l01002:*

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- 2: /SID52/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*
- 3: /SID52/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*
- 4: /SID52/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
- 5: /SID52/gcgdata/geneseq/geneseqn-emb1/NA1984.DAT:*
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- 22: /SID52/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:*
- 23: /SID52/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:*
- 24: /SID52/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1695	100.0	1695	22	AAF86442
2	1695	100.0	2275	22	AAF86440
3	1695	100.0	5349	19	AAV23239
4	1695	100.0	6539	21	AAZ91097
5	1695	100.0	6548	18	AAZ91096
6	1695	100.0	6548	21	AAZ91096
7	1695	100.0	7492	22	AAF86441
8	1693.4	99.9	2407	13	AAQ27488
9	1693.4	99.9	2407	15	AAQ53881

c	10	1693.4	99.9	6548	17	AAT39336	Plasmid pTS174 use
	11	1690.4	99.7	6667	22	AAD03878	NotI fragment of p
	12	1687	99.5	1687	22	AAD03888	El promoter from r
	13	365	21.5	365	22	AAF86443	Deleted El promoter
	14	365	21.5	5228	22	AAF86439	Plasmid pTS172del
c	15	77	4.5	1039	21	AAC37958	Arabidopsis thalia
c	16	73.6	4.3	848	21	AAC45264	Arabidopsis thalia
c	17	73.6	4.3	852	21	AAC37466	Arabidopsis thalia
c	18	72.6	4.3	965	24	ABN98530	Arabidopsis thalia
c	19	72.6	4.3	1022	21	AAC46022	Arabidopsis thalia
c	20	70.6	4.2	1037	21	AAC35979	Arabidopsis thalia
c	21	70.6	4.2	1134	21	AAC46307	Arabidopsis thalia
c	22	70.6	4.2	1160	21	AAC42139	Arabidopsis thalia
c	23	70.6	4.2	1162	21	AAC35280	Arabidopsis thalia
c	24	70.6	4.2	1163	21	AAC45562	Arabidopsis thalia
c	25	70.6	4.2	1173	21	AAC45561	Arabidopsis thalia
c	26	70.6	4.2	1177	21	AAC33374	Arabidopsis thalia
c	27	67	4.0	1257	21	AAC51083	Arabidopsis thalia
c	28	67	4.0	1259	21	AAC34564	Arabidopsis thalia
c	29	63.6	3.8	1348	21	AAC51796	Arabidopsis thalia
c	30	60.2	3.6	837	21	AAC43220	Arabidopsis thalia
c	31	60	3.5	293	24	ABL73463	Corn tassell-derive
c	32	59.6	3.5	709	24	ABQ65636	Arabidopsis thalia
c	33	59	3.5	1124	21	AAC51296	Arabidopsis thalia
c	34	59	3.5	1127	21	AAC47859	Arabidopsis thalia
c	35	53.6	3.2	304	24	ABL74167	Corn tassell-derive
c	36	52	3.1	776	21	AAC34104	Arabidopsis thalia
c	37	51.8	3.1	1098	21	AAC37589	Arabidopsis thalia
c	38	50.2	3.0	1097	21	AAC45513	Arabidopsis thalia
c	39	47.8	2.8	367	24	ABQ85545	Arabidopsis thalia
c	40	44	2.6	442	21	AAC38874	Arabidopsis thalia
c	41	41	2.4	10467	24	ABL49302	Human polynucleoti
c	42	39.2	2.3	8197	24	ABL70542	Chemically treated
c	43	39.2	2.3	8197	24	ABL34515	Human metastasis a
c	44	38	2.2	14103	22	AAT99350	Human excretory re
c	45	38	2.2	14103	22	AAK81278	Human immune/haema

ALIGNMENTS

RESULT 1
AAF86442
ID AAF86442 standard; DNA; 1695 BP.

AC AAF86442;

DT 25-JUN-2001 (first entry)

DE Rice El promoter.

XX Male sterile plant; RNAase inhibitor; rice; El promoter; ds.

XX Oryza sativa.

XX WO200124616-A1.

PD 12-APR-2001.

XX 12-SEP-2000; 2000WO-JF06222.

XX 30-SEP-1999; 99JP-0279307.

XX (NISR) JAPAN TOBACCO INC.

XX Hamada K, Nakakido F;

XX WPI; 2001-266212/27.

PT Method for producing male sterile rice and maize by inserting RNAse
gene and RNAse inhibitor genes with promoters into the plant genome
XX Claim 7; Page 24-25; 29pp; Japanese.

PN WO200124616-A1.
XX 12-APR-2001.
XX 12-SEP-2000; 2000WO-JP06222.
XX 30-SEP-1999; 99JP-0279307.
XX (N1S8) JAPAN TOBACCO INC.
XX Hamada K, Nakakido F;
XX WPI; 2001-266212/27.
XX Method for producing male sterile rice and maize by inserting RNase
PT gene and RNase inhibitor genes with promoters into the plant genome -
XX Disclosure; Page 17-19; 29pp; Japanese.
XX The present invention relates to a method for producing male sterile
CC plants. The method comprises inserting a promoter fragment upstream of an
CC RNase gene and a second promoter, upstream of an RNase inhibitor protein
CC gene and inserting it into the plant genome. The method is useful for
CC producing male sterile tobacco, lettuce and rapeseed plants, but
CC preferably rice and maize. The present sequence is an oligonucleotide
CC used in the method of the present invention.
XX SQ Sequence 2275 BP; 604 A; 496 G; 496 C; 679 T; 0 other;
Query Match 100.0%; Score 1695; DB 22; Length 2275;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1695; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
OY 1 CCGCAGATCCTCTGCTGATCTTTTATTAATAATTTATATCTGCAATACCTACC 60
DB 2256 CCGCAGATCCTCTGCTGATCTTTTATTAATAATTTATATCTGCAATACCTACC 2197
OY 61 ATATATAGTAGATTGTCAGCTGCAAGACTTCCAAATCCCGACAAATACCAATAGAGA 120
DB 2196 ATATATAGTAGATTGTCAGCTGCAAGACTTCCAAATCCCGACAAATACCAATAGAGA 2137
OY 121 TCCAAACCACTTAATATCATAAACAATCTGATTGTTAGTCCAGAACTATATTGAGTAGTG 180
DB 2136 TCCAAACCACTTAATATCATAAACAATCTGATTGTTAGTCCAGAACTATATTGAGTAGTG 2077
OY 181 AACAAATAGCACATTAACATTAAGGATTATTGGCTAACTCTGCAATTCATATTTCT 240
DB 2076 AACAAATAGCACATTAACATTAAGGATTATTGGCTAACTCTGCAATTCATATTTCT 2017
OY 241 GATGGCTTAATCTGGTCAATTTAGCGCTCCAGAAAGAAATGCAATCTTGGACAAT 300
DB 2016 GATGGCTTAATCTGGTCAATTTAGCGCTCCAGAAAGAAATGCAATCTTGGACAAT 1957
OY 301 GTTGGCACTGGAATCTGTTGATCTTTTACATCTCTTATTAACTAGCAAGAGTAGAT 360
DB 1956 GTTGGCACTGGAATCTGTTGATCTTTTACATCTCTTATTAACTAGCAAGAGTAGAT 1897
OY 361 TATTATGATACCAAGAGAAATCTCTTCAGATCTCTTCCACATGCAATGCTGTAAGAAACAG 420
DB 1896 TATTATGATACCAAGAGAAATCTCTTCAGATCTCTTCCACATGCAATGCTGTAAGAAACAG 1837
OY 421 ATACAGTCTAGCTTAGTCTTAATGACCGCTCAATGCCATTTCTGCAAGCATGTTGAG 480
DB 1836 ATACAGTCTAGCTTAGTCTTAATGACCGCTCAATGCCATTTCTGCAAGCATGTTGAG 1777
OY 481 AGATGATGATTCTTGGGATCCTTTGGAGGGGCCCTGAAATTCGGAACAGTATTGATGAGTT 540
DB 1776 AGATGATGATTCTTGGGATCCTTTGGAGGGGCCCTGAAATTCGGAACAGTATTGATGAGTT 1717
OY 541 TTAGTACCTAATGTTTCGCTTATACCTAGCTGAAATGCCATTTCTGTAAGCTGAGTTTC 600
DB 1716 TTAGTACCTAATGTTTCGCTTATACCTAGCTGAAATGCCATTTCTGTAAGCTGAGTTTC 1657

OY 601 TACCATCTCCACAGGAAATAAAGCTAATACTGCTCCAGAGTGTGCGCATTTGACCAA 660
DB 1656 TACCATCTCCACAGGAAATAAAGCTAATACTGCTCCAGAGTGTGCGCATTTGACCAA 1597
OY 661 ATGAAGATCACAAGCATGCGCAAGAATGCGCAATCTGGCAAGAGCGGAATATATTGTAT 720
DB 1596 ATGAAGATCACAAGCATGCGCAAGAATGCGCAATCTGGCAAGAGCGGAATATATTGTAT 1537
OY 721 TCTACTACATCGAACAGAACCATATCAATGTTGCCAGCAAGAGCCGCCGACAGTAAG 780
DB 1536 TCTACTACATCGAACAGAACCATATCAATGTTGCCAGCAAGAGCCGCCGACAGTAAG 1477
OY 781 TTCTCTGTTCTTCCACAGAGAAATATCCCAACTGCATAGCTCCCAACAATGAATCCAAA 840
DB 1476 TTCTCTGTTCTTCCACAGAGAAATATCCCAACTGCATAGCTCCCAACAATGAATCCAAA 1417
OY 841 ACCACATCGGCTCAGAGAGAGTATGATAAAGGCACTAATCTGTAATAATTTCTCTAGA 900
DB 1416 ACCACATCGGCTCAGAGAGAGTATGATAAAGGCACTAATCTGTAATAATTTCTCTAGA 1357
OY 901 AAGCGAATAATAATAGCACACCTTGACCTCCACCAAGAAGCTTGTGGATCGACTTGTGCC 960
DB 1356 AAGCGAATAATAATAGCACACCTTGACCTCCACCAAGAAGCTTGTGGATCGACTTGTGCC 1297
OY 961 CATGAATGCGCATCTGACATTTCTGCTCACTGTCAGANTCTCTCGAANAATGAGGAGCA 1020
DB 1296 CATGAATGCGCATCTGACATTTCTGCTCACTGTCAGANTCTCTCGAANAATGAGGAGCA 1237
OY 1021 TAGTCTGTTGTGTATGTTGTGGGATATTACGCTGCTAAACCTTTGTGTTCTGATCG 1080
DB 1236 TAGTCTGTTGTGTATGTTGTGGGATATTACGCTGCTAAACCTTTGTGTTCTGATCG 1177
OY 1081 ATCTGGTTAGAGAGCATCTGCTTTATTAAGCACTTAAANAATGCTAGTATATCTCTCAAG 1140
DB 1176 ATCTGGTTAGAGAGCATCTGCTTTATTAAGCACTTAAANAATGCTAGTATATCTCTCAAG 1117
OY 1141 AGCTATATCTGCAAGAGAAAGATAGCTTGGCTGTGGGATTTAGCCGCTTGAAGGGAC 1200
DB 1116 AGCTATATCTGCAAGAGAAAGATAGCTTGGCTGTGGGATTTAGCCGCTTGAAGGGAC 1057
OY 1201 AAACGAATACAGTTTACCTTACCAGATGTTTCCACAGACATGGGCAACGTCATTTGTAGAC 1260
DB 1056 AAACGAATACAGTTTACCTTACCAGATGTTTCCACAGACATGGGCAACGTCATTTGTAGAC 997
OY 1261 CAAGAAGCAAGAGCAAGATTTAGCTGTCTCAAAAAGATATGCTAGAGGCTTTCCAGAT 1320
DB 996 CAAGAAGCAAGAGCAAGATTTAGCTGTCTCAAAAAGATATGCTAGAGGCTTTCCAGAT 937
OY 1321 ATGTTCTATCTCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGCCATACATTAAC 1380
DB 936 ATGTTCTATCTCAGCCAGACCAATGGGGCAAAATTTACTACTATTTGCCATACATTAAC 877
OY 1381 CACGTAAAGTCTTACACTCAACCTAACTGTTGAACGCTCTGTTCTGGGCCAACGGTGAG 1440
DB 876 CACGTAAAGTCTTACACTCAACCTAACTGTTGAACGCTCTGTTCTGGGCCAACGGTGAG 817
OY 1441 AATGACCTAATGGAGGGGCAACACTTCTTTTCAACGCTGCTACTGCTACATCTGTTAGAC 1500
DB 816 AATGACCTAATGGAGGGGCAACACTTCTTTTCAACGCTGCTACTGCTACATCTGTTAGAC 757
OY 1501 GGTGAGCGCTGAGGTGCTTTGCGCATGACCTGCTTGGTGTGTTGTCAGTCACTTGGCAC 1560
DB 756 GGTGAGCGCTGAGGTGCTTTGCGCATGACCTGCTTGGTGTGTTGTCAGTCACTTGGCAC 697
OY 1561 GCTTGGACCGTGACTCACCTGCGCATATTGCCCGCGCTGCGCGGCCCTTACAAAGGCA 1620
DB 696 GCTTGGACCGTGACTCACCTGCGCATATTGCCCGCGCTGCGCGGCCCTTACAAAGGCA 637
OY 1621 CACAGCGACGCGGCCACGATTAACCATCTAGCATCCCGTGTGTCAGGAAGAGATCCAT 1680
DB 636 CACAGCGACGCGGCCACGATTAACCATCTAGCATCCCGTGTGTCAGGAAGAGATCCAT 577
OY 1681 CAAGCGCTCGGATG 1695

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Db 576 CAAGCGTGGCGATG 562
|||||
RESULT 3
AAV23239
ID AAV23239 standard; DNA: 5349 BP.
XX
AC AAV23239;
XX
DT 17-JUL-1998 (first entry)
XX
DE T-DNA of pTTS24.
XX
KW Barstar; barnase inhibitor; fertility restoration;
KW male-sterile line; plasmid pTTS24; T-DNA; ds.
XX
OS Synthetic.
XX
FH key Location/Qualifiers
FT misc_feature complement (1..25)
FT /tag= a
FT /label= RB
FT /note= "right boarder"
FT 3'UTR complement (98..331)
FT /tag= b
FT /label= 3'-97
FT /note= "region containing 3' untranslated end of
FT Agrobacterium T-DNA gene 7"
FT CDS 332..883
FT /tag= c
FT /label= bar
FT /note= "region coding for phosphinothricin acetyl
FT transferase"
FT promoter complement (884..2258)
FT /tag= d
FT /label= P35S
FT promoter /note= "35S promoter of Cauliflower Mosaic Virus"
FT 2281..3969
FT /tag= e
FT /label= PE1
FT /note= "promoter of E1 gene of rice (W09213956)"
FT CDS 3970..4245
FT /tag= f
FT /product= Improved_barstar
FT CDS 4246..4577
FT /tag= g
FT /label= 3'_chs
FT /note= "region containing 3' untranslated end of
FT chalcone synthase gene"
FT misc_feature complement (5325..5349)
FT /tag= h
FT /note= "T-DNA left border"
XX
XX W09810081-A2.
XX
XX 12-MAR-1998.
XX
XX 01-SEP-1997; 97WO-EP04739.
XX
XX 03-SEP-1996; 96EP-0202446.
XX
XX (PLB2 ) PLANT GENETIC SYSTEMS NV.
XX
XX Michiels F, Williams M;
XX
XX WPI; 1998-193630/17.
XX
XX DNA encoding an improved barstar protein - used to restore fertility
XX in male-sterile plant lines
XX
XX Example 4; Pages 41-43; 54pp; English.
XX
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CC The present sequence was used in the preparation of an improved
CC Bacillus amyloliquefaciens barstar, i.e. barnase inhibitor, which
CC can be used to restore fertility to male-sterile lines.
CC The DNA sequence encoding the improved barstar, leads to increased
CC barstar production in tapetum cells, due to improved translation,
CC and possibly protein stability.
XX
SQ Sequence 5349 BP; 1339 A; 1233 C; 1290 G; 1487 T; 0 other;
Query Match 100.0%; Score 1695; DB 19; Length 5349;
Best local Similarity 100.0%; Pred. No. 0;
Matches 1695; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 CCGCAGATCCCTTCGTGATGTTTATTAATAATTAATATTTATCTGGAAATACCTACC 60
DB 2278 CCGCAGATCCCTTCGTGATGTTTATTAATAATTAATATTTATCTGGAAATACCTACC 2337
QY 61 AATATATAGTAGACTTCTCAAGCTGCAAGAACTTCCCAATCGCGACAATACCAATAGAGA 120
DB 2338 AATATATAGTAGACTTCTCAAGCTGCAAGAACTTCCCAATCGCGACAATACCAATAGAGA 2397
QY 121 TCCAAACCACCTTAATATATCAATAACAATCTGATTTTGTAGTCCAGAACTATATTCAGTAGTG 180
DB 2398 TCCAAACCACCTTAATATATCAATAACAATCTGATTTTGTAGTCCAGAACTATATTCAGTAGTG 2457
QY 181 AACAAATAGCACATTAACATTTATGAGGATTTATGGCTAACTCTCAATTCATATTTCT 240
DB 2458 AACAAATAGCACATTAACATTTATGAGGATTTATGGCTAACTCTCAATTCATATTTCT 2517
QY 241 GATCGCTAATCTGGTCAATTTTAGCCCTCCAGAAAGAATTCACAACTCTTGGACAAT 300
DB 2518 GATCGCTAATCTGGTCAATTTTAGCCCTCCAGAAAGAATTCACAACTCTTGGACAAT 2577
QY 301 GTTGGCACTGGAACTGTGCATGTTTTTACATCTCTTATTAAAGGTAGCAAGAGTAGAT 360
DB 2578 GTTGGCACTGGAACTGTGCATGTTTTTACATCTCTTATTAAAGGTAGCAAGAGTAGAT 2637
QY 361 TATTATGTACCAAGAGAAATCTCTTCAGATCTTTTCCACATGCAATGTCTGTAAGAAGACAG 420
DB 2638 TATTATGTACCAAGAGAAATCTCTTCAGATCTTTTCCACATGCAATGTCTGTAAGAAGACAG 2697
QY 421 ATACAGTGTACGTTAGTTTGTAAATGGAGGCTCAATGGCATTCTCTGGAAGGATGTTGAG 480
DB 2698 ATACAGTGTACGTTAGTTTGTAAATGGAGGCTCAATGGCATTCTCTGGAAGGATGTTGAG 2757
QY 481 AGATGATGATTTCTCGGATCCTTGGAGGGGCCCTGAAATTCGGAACAGTTAGTTGAGTT 540
DB 2758 AGATGATGATTTCTCGGATCCTTGGAGGGGCCCTGAAATTCGGAACAGTTAGTTGAGTT 2817
QY 541 TTAGTACCTAATGCTTGGGTTTATCTACGTGAAATGCCATTTCTGTAAGCTGAGTTTTC 600
DB 2818 TTAGTACCTAATGCTTGGGTTTATCTACGTGAAATGCCATTTCTGTAAGCTGAGTTTTC 2877
QY 601 TACCATCTCCACAGGAATATAAGCTAATACCTGTCGAAGAGTGTGCGGCATTTGACCAA 660
DB 2878 TACCATCTCCACAGGAATATAAGCTAATACCTGTCGAAGAGTGTGCGGCATTTGACCAA 2937
QY 661 ATGAAGATCAAGAGCATGGCAAGAAATGGCAATCTCGGAAGAGGCGGAATTTATTTGAT 720
DB 2938 ATGAAGATCAAGAGCATGGCAAGAAATGGCAATCTCGGAAGAGGCGGAATTTATTTGAT 2997
QY 721 TCTACTACATCGAACAGAACCATATCAATTTGCGCCAGCAAGAGGACCCCGCAGATAAG 780
DB 2998 TCTACTACATCGAACAGAACCATATCAATTTGCGCCAGCAAGAGGACCCCGCAGATAAG 3057
QY 781 TTCTGTGTTCTTCCACAGAGAAATATCCGCAACTGCATAGCTCCCAACAATGAATCCAAA 840
DB 3058 TTCTGTGTTCTTCCACAGAGAAATATCCGCAACTGCATAGCTCCCAACAATGAATCCAAA 3117
QY 841 ACCACATCGGCTCAGAGAGAACTTATGATATAAGGCACTAATTTCTGAATAATTTCTCTAGA 900
DB 3118 ACCACATCGGCTCAGAGAGAACTTATGATATAAGGCACTAATTTCTGAATAATTTCTCTAGA 3177
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QY 901 AAGCAATAATAATAGCACACCTTGACCTCCACCAAGAAGCTTGTGGATCGACTTGTGCC 960
DB 3178 AAGCGAATAATAATAGCACACCTTGACCTCCACCAAGAAGCTTGTGGATCGACTTGTGCC 3237
QY 961 CATGAATGGCAATCTCTGACATCTGGTCACTGTGAGAAATCTCTCGAAATGAGGAGCA 1020
DB 3238 CATGAATGGCAATCTCTGACATCTGGTCACTGTGAGAAATCTCTCGAAATGAGGAGCA 3297
QY 1021 TAGCTTCGTGTGTATGTGTGGGATATTACGCTGCTAAACCTTTGTGTTCTGATCG 1080
DB 3298 TAGCTTCGTGTGTATGTGTGGGATATTACGCTGCTAAACCTTTGTGTTCTGATCG 3357
QY 1081 ATCTCGTTAGAGAGCATCGCTCTTATAAGCACTTAAAAATGCTAGTATAATCTCTCAAGG 1140
DB 3358 ATCTCGTTAGAGAGCATCGCTCTTATAAGCACTTAAAAATGCTAGTATAATCTCTCAAGG 3417
QY 1141 AGCCTATATCTGCCAAGGAAGATAGCTTTGGCCTGTGGGGATTTGAGCGTTTGAAGGGAAC 1200
DB 3418 AGCCTATATCTGCCAAGGAAGATAGCTTTGGCCTGTGGGGATTTGAGCGTTTGAAGGGAAC 3477
QY 1201 AAACGAATACAGTTACCTTACCAGATGTTGCCAGACATGGCAACGTCATTGCTAGAC 1260
DB 3478 AAACGAATACAGTTACCTTACCAGATGTTGCCAGACATGGCAACGTCATTGCTAGAC 3537
QY 1261 CAAGAAGGCAAGCAAGCAAGTTAGCTGTCTCAAAAAGATATGCTAGAGGCTTTCCAGAAT 1320
DB 3538 CAAGAAGGCAAGCAAGCAAGTTAGCTGTCTCAAAAAGATATGCTAGAGGCTTTCCAGAAT 3597
QY 1321 ATGTTCTATCTCAGCGACACCAATGGGGGCAAAATTTACTACTATTTCGCATACATTAAAC 1380
DB 3598 ATGTTCTATCTCAGCGACACCAATGGGGGCAAAATTTACTACTATTTCGCATACATTAAAC 3657
QY 1381 CAGGTAAAGTCTTACCTCAACCTTAACCTGTTGAACGGTCCCTGTTCTGGCCAAACGTCAG 1440
DB 3658 CAGGTAAAGTCTTACCTCAACCTTAACCTGTTGAACGGTCCCTGTTCTGGCCAAACGTCAG 3717
QY 1441 AATGCACCTTAATGGAGGAGCAACACTTCTTTTACCGTGTCTACTGCTACATCCTGTAGAC 1500
DB 3718 AATGCACCTTAATGGAGGAGCAACACTTCTTTTACCGTGTCTACTGCTACATCCTGTAGAC 3777
QY 1501 GGTGGACGGTGAGGTGCTTTCGCCATGACCGTCTGTTGTTGCTGCACTCACTTCGGCAC 1560
DB 3778 GGTGGACGGTGAGGTGCTTTCGCCATGACCGTCTGTTGTTGCTGCACTCACTTCGGCAC 3837
QY 1561 GCTTGCACCGTGACTCACTGCGACATTCGCCCGCGCGCTGCGCGCGCTACAAAAGCCA 1620
DB 3838 GCTTGCACCGTGACTCACTGCGACATTCGCCCGCGCGCTGCGCGCGCTACAAAAGCCA 3897
QY 1621 CACACGACGCGCGCGCACGATTAACCATCCTAGCATCCCGGTGTCAGCAAGAGATCCAT 1680
DB 3898 CACACGACGCGCGCGCACGATTAACCATCCTAGCATCCCGGTGTCAGCAAGAGATCCAT 3957
QY 1681 CAAGCCGTCGCGATG 1695
DB 3958 CAAGCCGTCGCGATG 3972
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RESULT 4
AA291097/c
ID AA291097 standard; DNA; 6539 BP.
XX
AC
XX
AA291097;
XX
DT 06-JUN-2000 (first entry)
DE
XX E. coli plasmid pTS431 containing mutant barnase gene.
XX
KW Male sterile plant; mutant barnase gene; anther-specific expression;
XX low fidelity PCR; primer; plant breeding; ss.
XX
OS Synthetic.
XX
PN W020008176-A1.
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XX 17-FEB-2000.
PD
XX
PF 03-AUG-1999; 99WO-JP04167.
XX
PR 04-AUG-1998; 98JP-0220060.
XX
PA (NISB ) JAPAN TOBACCO INC.
XX
XX Hamada K, Nakakido F;
PI
XX WPI; 2000-195581/17.
DR
XX
XX Mutate barnase gene for efficient construction of plant transformants,
PT particularly male sterile plants free from any undesirable characters
PT by specifically expressing the gene alone in anther .
XX
XX Example 3; Page 23-27; 30pp; Japanese.
XX
XX The invention relates to the generation of male sterile plants by
CC the introduction of a mutant barnase gene (AA291095) for expression
CC specifically in the anther of a plant. This sequence represents the
CC E. coli/Agrobacterium shuttle vector plasmid pTS172 which contains
CC the mutated barnase gene (AA291095) under control of the cauliflower
CC mosaic virus 35S promoter. The vector also contains a region of the
CC Agrobacterium T-DNA gene 7. The vector is used for transmitting the
CC barnase gene to plants via an Agrobacterium tumefaciens host cell.
CC The transformed plant is used in plant breeding.
XX
XX Sequence 6539 BP; 1755 A; 1578 C; 1519 G; 1687 T; 0 other;
```

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Query Match 100.0%; Score 1695; DB 21; Length 6539;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1695; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCGCAGATCCTTCTGTGTGATGTTTATTAATAATTTATCTTGGAAATACCTACC 60
DB 4307 CCGCAGATCCTTCTGTGTGATGTTTATTAATAATTTATCTTGGAAATACCTACC 4248
QY 61 AATATATAGTAGACTTGTCAAGCTGCAAGAATTTCCAAATCGCGACAATACCAATAGAGA 120
DB 4247 AATATATAGTAGACTTGTCAAGCTGCAAGAATTTCCAAATCGCGACAATACCAATAGAGA 4188
QY 121 TCCAAACCACTTAATATATCAATAAATCTGATTTAGTCCAGAACTATATGAGTAGTG 180
DB 4187 TCCAAACCACTTAATATATCAATAAATCTGATTTAGTCCAGAACTATATGAGTAGTG 4128
QY 181 AACACAATAGCACATTAACATTTAGGATTTATGCGTAACTCTGCAATTCATATTTCT 240
DB 4127 AACACAATAGCACATTAACATTTAGGATTTATGCGTAACTCTGCAATTCATATTTCT 4068
QY 241 GATGCGTCTAATCTGGTCAATTTTAGCGCTCCAGAAAGAATTTGCAATCTTGGACAAT 300
DB 4067 GATGCGTCTAATCTGGTCAATTTTAGCGCTCCAGAAAGAATTTGCAATCTTGGACAAT 4008
QY 301 GTTGGCACTGGAACTGTTGCATGTTTTCATCTCTTATTAACGTAGCAAGAGTAGAT 360
DB 4007 GTTGGCACTGGAACTGTTGCATGTTTTCATCTCTTATTAACGTAGCAAGAGTAGAT 3948
QY 361 TATTATGTACACAGAGAAATCTTTTCAGATCTTTCCACATGCAATTCGTAAGAACAG 420
DB 3947 TATTATGTACACAGAGAAATCTTTTCAGATCTTTCCACATGCAATTCGTAAGAACAG 3888
QY 421 ATACAGTGTACGTTAGTTTGTAAATGACGGTCAATGCCAATTTCTCTGAAGGCATGTTGAG 480
DB 3887 ATACAGTGTACGTTAGTTTGTAAATGACGGTCAATGCCAATTTCTCTGAAGGCATGTTGAG 3828
QY 481 AGATGATGATTTCTGGGATCCTTGGAGGGCCCTGAAATTCGGAACACAGTTAGTTCAGTT 540
DB 3827 AGATGATGATTTCTGGGATCCTTGGAGGGCCCTGAAATTCGGAACACAGTTAGTTCAGTT 3768
QY 541 TTAGTACCTTAATGCTCTTGGGTTTATCTAGTGAATGCAATTTCTGTAAGCTGAGTTTTC 600
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Db 3767 TTAGTACCTAATGCTCTGGCTTATATACGTGAAATGCCATTTCTGTAGGTGATTTTC 3708
QY 601 TACCATCTCCACAGGAATAAAGCTAAATACCTGTCCCAAGAGTGTGCGGCATTTCCACCA 660
Db 3707 TACCATCTCCACAGGAATAAAGCTAAATACCTGTCCCAAGAGTGTGCGGCATTTGACCA 3648
QY 661 ATGAAGATCACAGCATGCGCAAGAATGCGAATCTGCGAAAGAGCGGAATTTATATTGTAT 720
Db 3647 ATGAAGATCACAGCATGCGCAAGAATGCGAATCTGCGAAAGAGCGGAATTTATATTGTAT 3568
QY 721 TCTACTACATCAACAGCAAGCAATATCAATGTTGCCCGAGCAAGACCCCGCAGATAAG 780
Db 3587 TCTACTACATCAACAGCAAGCAATATCAATGTTGCCCGAGCAAGACCCCGCAGATAAG 3528
QY 781 TTCTCTTTTCTCCACAGCAGAGATATCCCACTGTCATAGCTCCCAACAATGAATCCAAA 840
Db 3527 TTCTCTTTTCTCCACAGCAGAGATATCCCACTGTCATAGCTCCCAACAATGAATCCAAA 3468
QY 841 ACCACATCGGCTCAGAGAGAAGTTATGATAAAGGCACATAATTTCTGAATAATTTCTTAGA 900
Db 3467 ACCACATCGGCTCAGAGAGAAGTTATGATAAAGGCACATAATTTCTGAATAATTTCTTAGA 3408
QY 901 AAGCGAATAAATAGCACACCTTGACCTCCACCACAGAGCTTGTGGATCGACTTGTGCC 960
Db 3407 AAGCGAATAAATAGCACACCTTGACCTCCACCACAGAGCTTGTGGATCGACTTGTGCC 3348
QY 961 CATGAATGGCAATCTGACATTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1020
Db 3347 CATGAATGGCAATCTGACATTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 3288
QY 1021 TAGCTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1080
Db 3287 TAGCTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 3228
QY 1081 ATCTGCTTAGAGAGCATGCTCTTATAGCACTTTAAAGCACTTAAAGTGTAGTATATCTCTCAAG 1140
Db 3227 ATCTGCTTAGAGAGCATGCTCTTATAGCACTTTAAAGCACTTAAAGTGTAGTATATCTCTCAAG 3168
QY 1141 AGCCTATCTGCCAGGAAGATAGCTTGGCCTGTGGGATTTGAGCGTTGAGCGTTGAGCGAAC 1200
Db 3167 AGCCTATCTGCCAGGAAGATAGCTTGGCCTGTGGGATTTGAGCGTTGAGCGTTGAGCGAAC 3108
QY 1201 AAACCAATACAGTTACCTTACCAGATGTTGGCCACGACATGGGCAACGTCATTTGCTAGAC 1260
Db 3107 AAACCAATACAGTTACCTTACCAGATGTTGGCCACGACATGGGCAACGTCATTTGCTAGAC 3048
QY 1261 CAAGAAGCAAGAAAGTAAAGTTAGCTGTCAAAAAAGATATGCTAGAGGCTTTCCAGAAAT 1320
Db 3047 CAAGAAGCAAGAAAGTAAAGTTAGCTGTCAAAAAAGATATGCTAGAGGCTTTCCAGAAAT 2988
QY 1321 ATGTTCTATCTACGCCAGACCAATGGGGGCAAAATTTACTACTATTTGGCATACATTAAC 1380
Db 2987 ATGTTCTATCTACGCCAGACCAATGGGGGCAAAATTTACTACTATTTGGCATACATTAAC 2928
QY 1381 CACGTAAAGTCTTACACTCAACTTCTTTCACCGTGTCTGCTGCTGCTGCTGCTGCTGCTGCTG 1440
Db 2927 CACGTAAAGTCTTACACTCAACTTCTTTCACCGTGTCTGCTGCTGCTGCTGCTGCTGCTGCTG 2868
QY 1441 AATGCACCTAATGGAGCGGCAACACTTCTTTCACCGTGTCTGCTGCTGCTGCTGCTGCTGCTGCTG 1500
Db 2867 AATGCACCTAATGGAGCGGCAACACTTCTTTCACCGTGTCTGCTGCTGCTGCTGCTGCTGCTGCTG 2808
QY 1501 GGTGGAGCGGTGAGGTGCTTTTCCGCTAGCCGTCCTTGTGTTGTCAGTCACTTGGCCAC 1560
Db 2807 GGTGGAGCGGTGAGGTGCTTTTCCGCTAGCCGTCCTTGTGTTGTCAGTCACTTGGCCAC 2748
QY 1561 GCTTGCACCGTGACTCACTGCGACATTTGCCCGCGCTGCGCGGCGCTACAAAAGCA 1620
Db 2747 GCTTGCACCGTGACTCACTGCGACATTTGCCCGCGCTGCGCGGCGCTACAAAAGCA 2688
QY 1621 CACACGACCGCGCGCACGATAACCCATCCTAGCATTCGCGGTGTCCAGCAAGAGATCCAT 1680
Db 2687 CACACGACCGCGCGCACGATAACCCATCCTAGCATTCGCGGTGTCCAGCAAGAGATCCAT 2628
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QY 1681 CAAGCCGTCGCGATG 1695
Db 2627 CAAGCCGTCGCGATG 2613

RESULT 5
AAT61394/c
ID AAT61394 standard; DNA; 6548 BP.
XX
AC AAT61394;
XX
DT 07-MAY-1997 (first entry)
XX
DE Plasmid pTS172.
XX
KW Transgenic plant; poly-(ADP-ribose) polymerase inhibitor; PARP;
KW niacinamide; Agrobacterium; T-DNA; male sterile; barnase;
KW ribonuclease; RNase; cereal; wheat; Triticum aestivum;
KW plasmid pTS172; ds.
XX
OS Chimeric Agrobacterium sp.;
OS Chimeric Oryza sativa;
OS Chimeric cauliflower mosaic virus.
XX
FH Key Location/Qualifiers
FT 3'UTR complement (2019..2288)
FT /*tag= a
FT /label= 3'nos
FT /note= "3' untranslated region contg. the poly-A
FT signal of Agrobacterium T-DNA nopaline
FT synthase gene"
FT complement (2289..2624)
FT /*tag= b
FT /product= barnase
FT complement (2625..4313)
FT /*tag= c
FT /label= PEI
FT /note= "promoter region of rice El gene"
FT complement (4316..5710)
FT /*tag= d
FT /label= P35S
FT /note= "35S promoter region of cauliflower mosaic
FT virus"
FT 5711..6262
FT /*tag= e
FT /label= Bar
FT /note= "phosphinothricin acetyltransferase"
FT 6243..6496
FT /*tag= f
FT /label= 3'g7
FT /note= "3' untranslated region contg. the poly-A
FT signal of gene 7 of Agrobacterium T-DNA"

EP757102-A1.
XX
XX 05-FEB-1997.
XX
XX 04-AUG-1995; 95EP-0401844.
XX
XX 04-AUG-1995; 95EP-0401844.
XX
XX (PLB2 ) PLANT GENETIC SYSTEMS NV.
XX
XX De Block M;
XX
XX WPI: 1997-111050/11.
XX
XX Prodn. of transgenic plants using a poly-(ADP-ribose) polymerase
XX inhibitor - reduces the cultured cells response to stress and
XX reduces metabolism
XX
XX Example 2; Page 17-20; 25pp; English.
PS
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XX plasmid pT5172 (AAT61394) contains the barnase coding sequence under
 CC control of the rice E1 gene stamen-specific promoter and a
 CC phosphinothricin acetyltransferase coding sequence under control of
 CC the CaMV 35S promoter. Plasmid pT5172 and plasmid pT5772 (see also
 CC AAT61395) were used to transform wheat spring variety Pavon calli via
 CC particle bombardment. Some calli were treated with the poly-(ADP-
 CC ribose) polymerase inhibitor niacinamide before, or before and
 CC after, bombardment. Healthy, male sterile plants were regenerated
 CC only from bombarded calli that were treated with niacinamide. This
 CC was believed to be due to more faithful expression characteristics
 CC of the integrated stamen-selective barnase gene in these calli
 CC and regenerated shoots. For plants transformed with pT5172,
 CC foreign DNA was stably incorporated in the wheat genome in 2-3
 CC copies.
 XX
 SQ Sequence 6548 BP; 1756 A; 1579 C; 1523 G; 1690 T; 0 other;

Query Match 100.0%; Score 1695; DB 18; Length 6548;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 1695; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCGCAGATCCTTCTGCTGATGTTTATTAAATTTAATATTTATCTGGAATACCTACC 60
 DB 4316 CCGCAGATCCTTCTGCTGATGTTTATTAAATTTAATATTTATCTGGAATACCTACC 4257
 QY 61 AATATATAGTAGCTTCAAGCTGCAAGAACTTCCAAATCGCGGCAATACCAATAGAGA 120
 DB 4256 AATATATAGTAGCTTCAAGCTGCAAGAACTTCCAAATCGCGGCAATACCAATAGAGA 4197
 QY 121 TCCAACACCTTAAATATCATAAACAATCTGATTTAGTCCAGAACTATATTGAGTAGTG 180
 DB 4196 TCCAACACCTTAAATATCATAAACAATCTGATTTAGTCCAGAACTATATTGAGTAGTG 4137
 QY 181 AACCAAAATAGCACATTAACATTTATGAGGATTTATGGCTAACTCTGCAATTCATATATCT 240
 DB 4136 AACCAAAATAGCACATTAACATTTATGAGGATTTATGGCTAACTCTGCAATTCATATATCT 4077
 QY 241 GATGCGCTTAATCTGGTCAATTTTAGCGTCCAGAAAGATTCGCAATTCCTTGCAANT 300
 DB 4076 GATGCGCTTAATCTGGTCAATTTTAGCGTCCAGAAAGATTCGCAANTTCCTTGCAANT 4017
 QY 301 GTTGGCACTGGAATCTTGCATGTTTATACATCTCTTATACGTAGCAAGAGTAGAT 360
 DB 4016 GTTGGCACTGGAATCTTGCATGTTTATACATCTCTTATACGTAGCAAGAGTAGAT 3957
 QY 361 TATTATGTACAGGAGAAATCTCTCAGATCTCTTCCACATGCAATGTGCGAAAGACAG 420
 DB 3956 TATTATGTACAGGAGAAATCTCTCAGATCTCTTCCACATGCAATGTGCGAAAGACAG 3897
 QY 421 ATACAGTGTACGTTAGTTTGTAAATGGAGCGGTCAATGCCATTTCTCTGAAGGCATGTTTACG 480
 DB 3896 ATACAGTGTACGTTAGTTTGTAAATGGAGCGGTCAATGCCATTTCTCTGAAGGCATGTTTACG 3837
 QY 481 AGATGATGATTTCTGGGATCTTGGAGGCGCTGAAATTCGGAACAGTAGTTAGTTGAGTT 540
 DB 3836 AGATGATGATTTCTGGGATCTTGGAGGCGCTGAAATTCGGAACAGTAGTTAGTTGAGTT 3777
 QY 541 TTAGTACCTTAATGCTTGGTGTATACGTGAAATGCCATTTCTGTAGCTGAGTTTTC 600
 DB 3776 TTAGTACCTTAATGCTTGGTGTATACGTGAAATGCCATTTCTGTAGCTGAGTTTTC 3717
 QY 601 TACATCTCCACAGGAAATAAGCTAATACCTGTCCAAAGAGTGGTGGGCATTTGACCAA 560
 DB 3716 TACATCTCCACAGGAAATAAGCTAATACCTGTCCAAAGAGTGGTGGGCATTTGACCAA 3657
 QY 661 ATGAAGTACACAGCATGGCAAGATGGCAATCTGGCAAGAGGCGGAATATATTGTAT 720
 DB 3656 ATGAAGTACACAGCATGGCAAGATGGCAATCTGGCAAGAGGCGGAATATATTGTAT 3597
 QY 721 TCTACTACATCGAAGGAGCAATCAATGTTGCCCGCAGCAAGGAGCCCGCAGATAAG 780
 DB 3596 TCTACTACATCGAAGGAGCAATCAATGTTGCCCGCAGCAAGGAGCCCGCAGATAAG 3537

QY 781 TTCTGTGTTCTTCCACAGCAGATATCCGCAACTGATAGCTCCCAACAATGAAATCCAAA 840
 DB 3536 TTCTGTGTTCTTCCACAGCAGATATCCGCAACTGATAGCTCCCAACAATGAAATCCAAA 3477
 QY 841 ACCACATCGGCTCAGAGAGAGTTATGATAAAGGACACTAATCTGTAATATTTCTCTAGA 900
 DB 3476 ACCACATCGGCTCAGAGAGAGTTATGATAAAGGACACTAATCTGTAATATTTCTCTAGA 3417
 QY 901 AGCGAATAATATAGCACACACTTGGACCTCCACCAAGAGCTTTGGATCGACTTGTGCC 960
 DB 3416 AGCGAATAATATAGCACACACTTGGACCTCCACCAAGAGCTTTGGATCGACTTGTGCC 3357
 QY 961 CATGAAATGGCAATCTGACATCTGTGTCACATCTGTGCAAAATCTCTCGGAAAAATGAGGAGCA 1020
 DB 3356 CATGAAATGGCAATCTGACATCTGTGTCACATCTGTGCAAAATCTCTCGGAAAAATGAGGAGCA 3297
 QY 1021 TAGCTTCGTGCTGTATGTGTGGGATATTAGCTGTCTAAACCTTTGTGTTCTGTATCG 1080
 DB 3296 TAGCTTCGTGCTGTATGTGTGGGATATTAGCTGTCTAAACCTTTGTGTTCTGTATCG 3237
 QY 1081 ATCTGTTAGAGAGCATCGTCTTTTATAAGCACCTTAAAAATGAGTATATAATCTCTCAAGG 1140
 DB 3236 ATCTGTTAGAGAGCATCGTCTTTTATAAGCACCTTAAAAATGAGTATATAATCTCTCAAGG 3177
 QY 1141 AGCCTATCTGCCAAGGAAAGATAGCTTGGCCTGTGGGATGAGCCGTTGAAGGGAAC 1200
 DB 3176 AGCCTATCTGCCAAGGAAAGATAGCTTGGCCTGTGGGATGAGCCGTTGAAGGGAAC 3117
 QY 1201 AAAGCAATACAGTTACCTTACCAGATGTTTGCACGACATGGGCAACGTCATGCTAGAC 1260
 DB 3116 AAAGCAATACAGTTACCTTACCAGATGTTTGCACGACATGGGCAACGTCATGCTAGAC 3057
 QY 1261 CAAGAAGCAAGAAGCAAGTTTACCTGTCAAAAAGATATGCTAGAGGCTTTCCAGAAT 1320
 DB 3056 CAAGAAGCAAGAAGCAAGTTTACCTGTCAAAAAGATATGCTAGAGGCTTTCCAGAAT 2997
 QY 1321 ATGTTCTATCTCAGCAGACCAATGGGGCAAAATTTACTACTATTGTCATACATTAAC 1380
 DB 2996 ATGTTCTATCTCAGCAGACCAATGGGGCAAAATTTACTACTATTGTCATACATTAAC 2937
 QY 1381 CAGTAAAGTCTTACACTCAACTTGTGACGGTCTGTTGACGGTCTGTTGCCACGCGTACG 1440
 DB 2936 CAGTAAAGTCTTACACTCAACTTGTGACGGTCTGTTGACGGTCTGTTGCCACGCGTACG 2877
 QY 1441 AATGCACTTAATGAGCGGGAACAACCTTCTTCCACGTGCTACTGCTACATCTGTTAGAC 1500
 DB 2876 AATGCACTTAATGAGCGGGAACAACCTTCTTCCACGTGCTACTGCTACATCTGTTAGAC 2817
 QY 1501 GGTGGACGCTGAGGTGCTTTTCCCATGACCGCTCTTGTGTTGTCAGTCTGTTGCGCAC 1560
 DB 2816 GGTGGACGCTGAGGTGCTTTTCCCATGACCGCTCTTGTGTTGTCAGTCTGTTGCGCAC 2757
 QY 1561 GCTTGCACCGTCACTCAGCTGCCCATGCGCGCGCTGCGCGCGCTACAAAAGCA 1620
 DB 2756 GCTTGCACCGTCACTCAGCTGCCCATGCGCGCGCTGCGCGCGCTACAAAAGCA 2697
 QY 1621 CACACGACGCGCGGCAAGTAAACCTTCTAGCATCCCGGTGTCACGACAGATCCAT 1680
 DB 2696 CACACGACGCGCGGCAAGTAAACCTTCTAGCATCCCGGTGTCACGACAGATCCAT 1637
 QY 1681 CAAGCGCTGCGGATG 1695
 DB 2636 CAAGCGCTGCGGATG 2622

RESULT 6
 AAZ91096/c
 ID AAZ91096 standard; DNA; 6548 BP.
 XX
 AC AAZ91096;
 XX
 DT 06-JUN-2000 (first entry)

xx E. coli plasmid pTS172 containing synthetic barnase gene.
xx Male sterile plant; mutant barnase gene; anther-specific expression;
xx low fidelity PCR; primer: plant breeding; ss.
xx Synthetic.
xx WO200008176-A1.
xx 17-FEB-2000.
xx 03-AUG-1999; 99WO-JP04167.
xx 04-AUG-1998; 98JP-0220060.
xx (N15B) JAPAN TORACCO INC.
xx Hamada K, Nakakido F;
xx MPI; 2000-195581/17.
xx Mutate barnase gene for efficient construction of plant transformants,
xx particularly male sterile plants free from any undesirable characters
xx by specifically expressing the gene alone in anther.
xx Example 3; Page 19-23; 30pp; Japanese.
xx The invention relates to the generation of male sterile plants by
xx the introduction of a mutant barnase gene (AA291095) for expression
xx specifically in the anther of a plant. This sequence represents the
xx E. coli/Agrobacterium shuttle vector plasmid pTS172 which contains
xx the synthetic barnase gene (AA291094) under control of the cauliflower
xx mosaic virus 35S promoter. The vector also contains a region of the
xx Agrobacterium T-DNA gene 7. The vector is used for transmitting the
xx barnase gene to plants via an Agrobacterium tumefaciens host cell.
xx The transformed plant is used in plant breeding.
xx Sequence 6548 BP; 1756 A; 1579 C; 1523 G; 1690 T; 0 other;
xx
xx Query Match 100.0%; Score 1695; DB 21; Length 6548;
xx Best Local Similarity 100.0%; Pred. No. 0;
xx Matches 1695; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
xx
xx 1 CCGCAGATCCTTCTGTGTGATGTTTATTAATAATTTATTAATCTCGAATACCTACC 60
xx DB 4316 CCGCAGATCCTTCTGTGTGATGTTTATTAATAATTTATTAATCTCGAATACCTACC 4257
xx
xx 61 AATATATAGTAGCTTCAAGCTGCAAGAACCTTCCCAATCCCGCAGCAATACCAATAGAGA 120
xx DB 4256 AATATATAGTAGCTTCAAGCTGCAAGAACCTTCCCAATCCCGCAGCAATACCAATAGAGA 4197
xx
xx 121 TCCAAACCCTTAATATCATAAACAATCTGATTTAGTCCAGAACTATATTGAGTAGTG 180
xx DB 4196 TCCAAACCCTTAATATCATAAACAATCTGATTTAGTCCAGAACTATATTGAGTAGTG 4137
xx
xx 181 ACAACAATAGCAGATTAACATTAAGGATTTAGCTAACTCTGCAATCAATATCT 240
xx DB 4136 ACAACAATAGCAGATTAACATTAAGGATTTAGCTAACTCTGCAATCAATATCT 4077
xx
xx 241 GATGGCTTAATCTGTCAATTTTACCGCTCCAGAAAGATTCGCAATCTTGGACAT 300
xx DB 4076 GATGGCTTAATCTGTGCAATTTTACCGCTCCAGAAAGATTTGCAATCTTGGACAT 4017
xx
xx 301 GTTGGCACTGAAGCTGTGATGTTTATACATCTCTTATTAAAGTGAAGAGATAGAT 360
xx DB 4016 GTTGGCACTGAAGCTGTGATGTTTATACATCTCTTATTAAAGTGAAGAGATAGAT 3957
xx
xx 361 TATTATGACAGAGAAATCTCTTCAGATCTCTTCCACATGCAATGTGCTAAAGACAG 420
xx DB 3956 TATTATGACAGAGAAATCTCTTCAGATCTCTTCCACATGCAATGTGCTAAAGACAG 3897
xx
xx 421 ATACAGTGTAGTTTGTATGAGCGGTCAATGCCATTTCTCTGAAAGGCATCTTCAG 480

Db 3896 ATACAGTGTAGTTTGTATGAGCGGTCAATGCCATTTCTCTGAAAGGCATGTTTCAG 3837
Qy 481 AGATGATGATTTCTGGGATCCTTTGGAGGGGCCCTGAAATTCGGAACACAGTTAGTTGAGTT 540
Db 3836 AGATGATGATTTCTGGGATCCTTTGGAGGGGCCCTGAAATTCGGAACACAGTTAGTTGAGTT 3777
Qy 541 TTAGTAGTACCTTAATGTTGCGGTATACCTAGTGAATGCAATTTCTGTAAGCTGAGTTTTC 600
Db 3776 TTAGTAGTACCTTAATGTTGCGGTATACCTAGTGAATGCAATTTCTGTAAGCTGAGTTTTC 3717
Qy 601 TACCATCTCCACAGSAAATAAGCTAATACCTGTCCAAAGAGTGTGGCGCATTTGACCAA 660
Db 3716 TACCATCTCCACAGSAAATAAGCTAATACCTGTCCAAAGAGTGTGGCGCATTTGACCAA 3657
Qy 661 ATGAGATGACAGCATGCGCAAGATGGCAATTCGCAAGAGCGCGGAATTTATATTGTAT 720
Db 3656 ATGAGATGACAGCATGCGCAAGATGGCAATTCGCAAGAGCGCGGAATTTATATTGTAT 3597
Qy 721 TCTACTACATCGAACAGAACCATATCAATGTTGCCAGCAAGGAGCCCGCAGATAG 780
Db 3596 TCTACTACATCGAACAGAACCATATCAATGTTGCCAGCAAGGAGCCCGCAGATAG 3537
Qy 781 TTCTCTGTTCTTCCACAGCAGATATCCGCAACTGCTAGCTCCCAACAATGAATCCAAA 840
Db 3536 TTCTCTGTTCTTCCACAGCAGATATCCGCAACTGCTAGCTCCCAACAATGAATCCAAA 3477
Qy 841 ACCACATCGGCTCAGAGAGAAATTTATGATAAAGCAGCTAATTTCTGAATAATTTCTTCTAGA 900
Db 3476 ACCACATCGGCTCAGAGAGAAATTTATGATAAAGCAGCTAATTTCTGAATAATTTCTTCTAGA 3417
Qy 901 AAGCGAATAATAATAGCACACCTTGACCTCCACCAAGAGCTTGTGATCGAGCTGTGCGC 960
Db 3416 AAGCGAATAATAATAGCACACCTTGACCTCCACCAAGAGCTTGTGATCGAGCTGTGCGC 3357
Qy 961 CATGAATGGCATTTCTGACATCTGCTGACATCTGAGATCTCTGCGAATATGAGGAGCA 1020
Db 3356 CATGAATGGCATTTCTGACATCTGCTGACATCTGAGATCTCTGCGAATATGAGGAGCA 3297
Qy 1021 TAGCTTCGTGTGTATGTGTGGGATTAATAGCTGCTAAACCTTTGTGTTCTTCTGATCG 1080
Db 3296 TAGCTTCGTGTGTATGTGTGGGATTAATAGCTGCTAAACCTTTGTGTTCTTCTGATCG 3237
Qy 1081 ATCTGGTTAGAGAGCATCGCTTTTATAAGCACTTAAATAAGGTAGTATATCTCTCAAGG 1140
Db 3236 ATCTGGTTAGAGAGCATCGCTTTTATAAGCACTTAAATAAGGTAGTATATCTCTCAAGG 3177
Qy 1141 AGCCTATATCTCCCAAGGAAAGATAGCTTTGGCCTGTGGGATTTGAGCCGCTTGAAGGGAAC 1200
Db 3176 AGCCTATATCTCCCAAGGAAAGATAGCTTTGGCCTGTGGGATTTGAGCCGCTTGAAGGGAAC 3117
Qy 1201 AAACGAATACAGTTACCTTACCAGATGTTTGGCAGACATGGGCAACGTCATTTGCTAGAC 1260
Db 3116 AAACGAATACAGTTACCTTACCAGATGTTTGGCAGACATGGGCAACGTCATTTGCTAGAC 3057
Qy 1261 CAAGAGSCAAGAGAAAGTTTAGCTGTCAAAAAGATATGCTAGAGGCTTTCCAGAAAT 1320
Db 3056 CAAGAGSCAAGAGAAAGTTTAGCTGTCAAAAAGATATGCTAGAGGCTTTCCAGAAAT 2997
Qy 1321 ATGTTCTATCTACCCAGACCAATGGGGCAAAATTTACTACTATTTTGGCATACATTAAC 1380
Db 2996 ATGTTCTATCTACCCAGACCAATGGGGCAAAATTTACTACTATTTTGGCATACATTAAC 2937
Qy 1381 CACGTAAAGTCTTACTACTCAACTTAACCTTGAACCGTCTGTTCTGGCCACACGGTGAG 1440
Db 2936 CACGTAAAGTCTTACTACTCAACTTAACCTTGAACCGTCTGTTCTGGCCACACGGTGAG 2877
Qy 1441 AATGACCATTAATGGACGGGACAACTTCTTTTACCGTGTCTACTGTACATCTCTGTAGAC 1500
Db 2876 AATGACCATTAATGGACGGGACAACTTCTTTTACCGTGTCTACTGTACATCTCTGTAGAC 2817
Qy 1501 GGTGGACCGGTGAGGTCTCTTTTCGCCATGACCGCTCTGTTGTTGTGAGTCACTTGGCGAC 1560


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Db 2816 GGTGGAGCGGTGAGTGCCTTTGGCCATGACCGTCCTTGGTTGTTGTCAGTCACTTGGCCAC 2757
QY 1561 GCTTGCACCGTGACTCACTGACATTCGACATTCGCCCGCGCGCTGCGGCGCTACAAAAGCCA 1620
Db 2756 GCTTGCACCGTGACTCACTGACATTCGACATTCGCCCGCGCGCTGCGGCGCTACAAAAGCCA 2697
QY 1621 CACACGACGCGCGGCACGATACCCATCCTAGCATCCCGGTGTCGAGCAAGAGATCCAT 1680
Db 2696 CACACGACGCGCGGCACGATACCCATCCTAGCATCCCGGTGTCGAGCAAGAGATCCAT 2637
QY 1681 CAAGCGTCGCGATG 1695
Db 2636 CAAGCGTCGCGATG 2622

RESULT 7
AAF86441/c
ID AAF86441 standard; DNA; 7492 BP.
XX
AC AAF86441;
XX
DT 25-JUN-2001 (first entry)
XX
DE Plasmid pTS346.
XX
KW Male sterile plant; RNAase inhibitor; plasmid pTS346; ds.
XX
OS Unidentified.
XX
PN W0200124616-A1.
XX
PD 12-APR-2001.
XX
PE 12-SEP-2000; 2000WO-JP06222.
XX
PR 30-SEP-1999; 99JP-0279307.
XX
PA (NIBS ) JAPAN TOBACCO INC.
XX
PI Hamada K, Nakakido F;
XX
WPI: 2001-266212/27.
XX
PT Method for producing male sterile rice and maize by inserting RNase
PS gene and RNase inhibitor genes with promoters into the plant genome -
XX Disclosure; Page 19-23; 29pp; Japanese.
XX
CC The present invention relates to a method for producing male sterile
CC plants. The method comprises inserting a promoter fragment upstream of an
CC RNase gene and a second promoter, upstream of an RNase inhibitor protein
CC gene and inserting it into the plant genome. The method is useful for
CC producing male sterile tobacco, lettuce and rapeseed plants, but
CC preferably rice and maize. The present sequence is a vector used in
CC the method of the present invention.
XX
SQ Sequence 7492 BP; 1987 A; 1801 C; 1752 G; 1952 T; 0 other;

Query Match 100.0%; Score 1695; DB 22; Length 7492;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1695; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 CCGCAGATCCTCTGCTGATGTTTATTAAATTTAATATTATCTGGAATACCTACC 60
Db 5242 CCGCAGATCCTCTGCTGATGTTTATTAAATTTAATATTATCTGGAATACCTACC 5183
QY 61 AATATATAGTAGACTTGTCAAGCTGCAAGAACTTCCAATCGCCGACAAATACCAATAGAGA 120
Db 5182 AATATATAGTAGACTTGTCAAGCTGCAAGAACTTCCAATCGCCGACAAATACCAATAGAGA 5123
QY 121 TCCAAACACCTTAAATATCATTAACAATCTGATTGTAGTCCGCAACTATATTGAGTAGTG 180
Db 5122 TCCAAACACCTTAAATATCATTAACAATCTGATTGTAGTCCGCAACTATATTGAGTAGTG 5063
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QY 181 AACAAATAGCACATTAACATTTATGAGGATTTATGGCTAACTCTGCAATTCATATTCT 240
Db 5062 RACAACATAGCACATTAACATTTATGAGGATTTATGGCTAACTCTGCAATTCATATTCT 5003
QY 241 GATGCGTCTAATCTGGTCAATTTTACGCGCTCCAGAAAGAAATGCAATCTCTGGACAAT 300
Db 5002 GATGCGTCTAATCTGGTCAATTTTACGCGCTCCAGAAAGAAATGCAATCTCTGGACAAT 4943
QY 301 GTTGGCACTGGAACCTGTTGCATGTTTTTACATCTCTTAACTAGCAAGAGGAGTAGAT 360
Db 4942 GTTGGCACTGGAACCTGTTGCATGTTTTTACATCTCTTAACTAGCAAGAGGAGTAGAT 4883
QY 361 TATTATGTACCAGGAGAAATCTTTTCAGATCCTTTCCACATGCAATGCTGTAAGAACAG 420
Db 4882 TATTATGTACCAGGAGAAATCTTTTCAGATCCTTTCCACATGCAATGCTGTAAGAACAG 4823
QY 421 ATACAGTGTACGTTAGTTTGTAAATGAGCGGTCATTTCTCTGAAGCATGTTTCAG 480
Db 4822 ATACAGTGTACGTTAGTTTGTAAATGAGCGGTCATTTCTCTGAAGCATGTTTCAG 4763
QY 481 AGATGATGATTTCTGCGATCCTTTGGAGGGGCCCTGAAATTCGAAACAGTTAGTTGAGTT 540
Db 4762 AGATGATGATTTCTGGGATCCTTTGGAGGGGCCCTGAAATTCGAAACAGTTAGTTGAGTT 4703
QY 541 TTAGTACCTTAATCTCTGCGTTTATCTAGTGAATGCAATTTCTTAAGCTGAGTTTC 600
Db 4702 TTAGTACCTTAATCTCTGCGTTTATCTAGTGAATGCAATTTCTTAAGCTGAGTTTC 4643
QY 601 TACCATCTCCACAGGAAATAAAGCTTAATACCTGTCCAGAGAGTGTGCGGCATTTGACCA 560
Db 4642 TACCATCTCCACAGGAAATAAAGCTTAATACCTGTCCAGAGAGTGTGCGGCATTTGACCA 4583
QY 661 ATGAAGATCACAAGCATGCGAAGATGGAATCTGCAAGAGCGGGAATTAATTTGAT 720
Db 4582 ATGAAGATCACAAGCATGCGAAGATGGAATCTGCAAGAGCGGGAATTAATTTGAT 4523
QY 721 TCTACTACATCGAACAGAACCATATCAATGTTGCCCGCCAGCAAGGCCCGCCAGATAAG 780
Db 4522 TCTACTACATCGAACAGAACCATATCAATGTTGCCCGCCAGCAAGGCCCGCCAGATAAG 4463
QY 781 TTCTGTTCTTCCACAGCAGAAATATCCGCACTGCTCCACAAATGAATCCCAA 840
Db 4462 TTCTGTTCTTCCACAGCAGAAATATCCGCACTGCTCCACAAATGAATCCCAA 4403
QY 841 ACCACATCGGCTCAGAGAGAAGTTATGATAAAGGCACTAATCTGAATAATTTCTAGA 900
Db 4402 ACCACATCGGCTCAGAGAGAAGTTATGATAAAGGCACTAATCTGAATAATTTCTAGA 4343
QY 901 AAGCGAATAATATAGCACACCTTGACCTCCACCAAGAGCTTTGGGATCGACTTGTGCC 960
Db 4342 AAGCGAATAATATAGCACACCTTGACCTCCACCAAGAGCTTTGGGATCGACTTGTGCC 4283
QY 961 CATGAATGGCATCTGACATCTCTGCTCACTCTCGAATCTCTCGAATAATGAGGAGCA 1020
Db 4282 CATGAATGGCATCTGACATCTCTGCTCACTCTCGAATCTCTCGAATAATGAGGAGCA 4223
QY 1021 TAGCTTCGCTGTGTATGTTGGGATATTACGCTGCTTAAACTTTGTGTTTCTGATCG 1080
Db 4222 TAGCTTCGCTGTGTATGTTGGGATATTACGCTGCTTAAACTTTGTGTTTCTGATCG 4163
QY 1081 ATCTGCTTATAGAGCATGCTCTTTTATAGCACTTTAAATGGTGTAGTATATCTCTCAAG 1140
Db 4162 ATCTGCTTATAGAGCATGCTCTTTTATAGCACTTTAAATGGTGTAGTATATCTCTCAAG 4103
QY 1141 AGCCTATCTGCAAGAAAGGATAGCTTTGGCGCTGCGGATTTAGCCCTTGAAGGGAAC 1200
Db 4102 AGCCTATCTGCAAGAAAGGATAGCTTTGGCGCTGCGGATTTAGCCCTTGAAGGGAAC 4043
QY 1201 AAACGAATACAGTTACCTTTACCAGATGTTTGGCCACCATGCGCAACGCTATTGCTAGAC 1260
Db 4042 AAACGAATACAGTTACCTTTACCAGATGTTTGGCCACCATGCGCAACGCTATTGCTAGAC 3983
```

QY	1261	CAAGAAGGCAGAAAGCAAGT	TTAGCTGTCAAAAAGATATGCTAGAGGCTTTCCAGAAT	1320
Db	3982	CAAGAAGGCAGAAAGCAAGT	TTAGCTGTCAAAAAGATATGCTAGAGGCTTTCCAGAAT	3923
QY	1321	ATGTTCTATCTCAGCCAGACCAAT	GGGGGCAAAATTTACTACTATTTGCCATACATTAAAC	1380
Db	3922	ATGTTCTATCTCAGCCAGACCAAT	GGGGGCAAAATTTACTACTATTTGCCATACATTAAAC	3863
QY	1381	CAGCTAAAAGTCCTACACTCAACCT	TAACCTGTTGAACGGTCTCTGTTGGCCAAACGGTGAG	1440
Db	3862	CAGCTAAAAGTCCTACACTCAACCT	TAACCTGTTGAACGGTCTCTGTTGGCCAAACGGTGAG	3803
QY	1441	AATGCACCTTAATGGACGGGACACAC	ATTCTTTTCACCCGTGCTACTGCTACATCTCTGTAGAC	1500
Db	3802	AATGCACCTTAATGGACGGGACACAC	ATTCTTTTCACCCGTGCTACTGCTACATCTCTGTAGAC	3743
QY	1501	GGTGGACGGCTGAGGTGCTTTCCGCAT	CACCGTCTCTTGTTGTTGTCAGTCACATTGGCGCAC	1560
Db	3742	GGTGGACGGCTGAGGTGCTTTCCGCAT	CACCGTCTCTTGTTGTTGTCAGTCACATTGGCGCAC	3683
QY	1561	GCTTGACCGTGACATCACTGCCACAT	TGCCCGCGCGCTGCGCGGCGCCCTACAAAAGCCA	1620
Db	3682	GCTTGACCGTGACATCACTGCCACAT	TGCCCGCGCGCTGCGCGGCGCCCTACAAAAGCCA	3623
QY	1621	CACACGACGCGCGGCACGATAAACCAT	CTCTAGCATCCCGGTGTCACAGCAAGAGATCCCAT	1680
Db	3622	CACACGACGCGCGGCACGATAAACCAT	CTCTAGCATCCCGGTGTCACAGCAAGAGATCCCAT	3563
QY	1681	CAAGCGCTCGCGATG	1695	
Db	3562	CAAGCGCTCGCGATG	3548	

RESULT 8	
AAQ27488	
ID	AAQ27488 standard; DNA; 2407 BP.
XX	
XX	
AC	AAQ27488;
AC	
XX	
XX	
DT	10-FEB-1993 (first entry)
DT	
XX	
XX	
DE	GEL promoter and 5' gene portion.
XX	
XX	
XX	Immature; spikelet; microsporocyte; meiosis; anther; probe: leaf;
KW	expression cassette; root; stamen; fertile pollen; ss.
KW	
XX	
OS	<i>Orzya sativa</i> .

Key	Location/Qualifiers
promoter	1..2263
FT	/*tag= a
FT	/label= pE1_promoter_region
FT	2181..2187
TATA_signal	/*tag= b
FT	2211
misc_signal	/*tag= c
FT	/label= transcription_initiation_site
FT	2264..2407
CDS	/*tag= d
FT	/label= El gene 5' region
FT	

XX	PN	WO9213956-A.	
XX	PN		
XX	XX		
PD	XX	20-AUG-1992.	
XX	XX		
XX	XX		
XX	XX	06-FEB-1992;	92WO-EP00274.
PF	XX		
PR	PR	08-FEB-1991;	91EP-0400318.
PR	PR	27-SEP-1991;	91EP-0402590.
PR	PR	10-DEC-1991;	91EP-0403352.
PR	PR		
PA	XX	(PLBZ) PLANT GENETIC SYSTEMS NV.	

PI	Komari T, Michiels F, Morioka S, Scheirlinck T;
XX	
DR	WPI; 1992-300042/36.
XX	
XX	Stamen-specific plant promoters - for producing male-sterile or
PT	male-fertility-restored monocotyledons, e.g. rice
PT	
XX	
XX	Disclosure; Page 47-48; 58pp; English.
PS	
XX	
CC	The sequences given in AAO27486-88 are the promoter regions of stamen
CC	specific rice genes. These genes were isolated by using male flower-
CC	specific cDNA's as probes (see AAO27481-5). The gene sequences isola-
CC	ted can be used for producing transgenic male-sterile monocots. These
CC	promoters can be used to form expression cassettes which can be
CC	used to provide gene expression predominantly in the stamen cells
CC	of a plant, and do not provide gene expression in the other parts of
CC	the plant that are not involved in the production of fertile pollen.
XX	
XX	Sequence 2407 BP; 662 A; 543 C; 507 G; 695 T; 0 other;
SQ	

Query Match	99.9%	Score 1693.4	DB 13	Length 2407
Best Local Similarity	99.9%	Pred. No. 0		
Matches 1694	Conservative	0	Mismatches	1
			Indels	0
			Gaps	0
Qy	1	CCGCAGACTCCTCTCTGTGATGTTTATTAATAAATTTAAATATTTATCTGGAATACCTACC	60	
Db	572	CCTCAGATCCCTCTCTGTGATGTTTATTAATAAATTTAAATATTTATCTGGAATACCTACC	631	
Qy	61	AATATATAGTAGACTTGTCAAGCTGCCAAGAAGTTCCTCAATCGCCGACCAATACCAATAGAGA	120	
Db	632	AATATATAGTAGACTTGTCAAGCTGCCAAGAAGTTCCTCAATCGCCGACCAATACCAATAGAGA	691	
Qy	121	TCCAACCACTTAATATCATATAAACAATCTGATGTTTGTAGTCCAGAAGTATATTTGAGTAGTG	180	
Db	692	TCCAACCACTTAATATCATATAAACAATCTGATGTTTGTAGTCCAGAAGTATATTTGAGTAGTG	751	
Qy	181	AACAACAAATAGCACATTAACAATATGAGGATTAATGCTGACTGCAATTCGAATTTCT	240	
Db	752	AACAACAAATAGCACATTAACAATATGAGGATTAATGCTGACTGCAATTCGAATTTCT	811	
Qy	241	GATCGCTTAATCTGGTCAATTTTAGCGCTCCAGAAAGAAATTCGACAAATCCTTGACAAAT	300	
Db	812	GATCGCTTAATCTGGTCAATTTTAGCGCTCCAGAAAGAAATTCGACAAATCCTTGACAAAT	871	
Qy	301	GTTCGCACTGGAAGTGTGCAATGTTTACATCTCTTATTAACGTAGCAAGGAGTAGAT	360	
Db	872	GTTCGCACTGGAAGTGTGCAATGTTTACATCTCTTATTAACGTAGCAAGGAGTAGAT	931	
Qy	361	TATTATCTACACAGAGAAATCTCTTTCAGATCCTTTCCACATGCAATCTGCTAAAGAAACAG	420	
Db	932	TATTATCTACACAGAGAAATCTCTTTCAGATCCTTTCCACATGCAATCTGCTAAAGAAACAG	991	
Qy	421	ATACAGTGTACGTTAGTGTGTAATGGACGGTCAATGCCATTTCTCTGAAGGCATGTTTCAG	480	
Db	992	ATACAGTGTACGTTAGTGTGTAATGGACGGTCAATGCCATTTCTCTGAAGGCATGTTTCAG	1051	
Qy	481	AGATGATGATTTCTGGGATCCTTTGGAGGGCCCTGAAATTCGGAAACAGTTAGTTGAGTT	540	
Db	1052	AGATGATGATTTCTGGGATCCTTTGGAGGGCCCTGAAATTCGGAAACAGTTAGTTGAGTT	1111	
Qy	541	TTAGTACTTAATGCTTTGCCGTTTATCTACCTGAAATGCCATTTCTGTGAAGCTGAGTTTTC	600	
Db	1112	TTAGTACTTAATGCTTTGCCGTTTATCTACCTGAAATGCCATTTCTGTGAAGCTGAGTTTTC	1171	
Qy	601	TACCATCTCCACAGGAATAAAGCTAATACCTGTCCAAAGAGTGGTCCGGCATTTTGACCAA	660	
Db	1172	TACCATCTCCACAGGAATAAAGCTAATACCTGTCCAAAGAGTGGTCCGGCATTTTGACCAA	1231	
Qy	661	ATGAAGATCACAGCATGGCAAGATGGCAATCTGCGCAAGAGGACCGGAATTTATTTGTAT	720	
Db	1232	ATGAAGATCACAGCATGGCAAGATGGCAATCTGCGCAAGAGGACCGGAATTTATTTGTAT	1291	
Qy	721	TCCTACTACATCGAACAGGAACCAATATCAATTTGTGGCCAGCAAGGACCCCGCAGATAAG	780	

[illegible]

RESULT 9		Qy		Db	
AAQ53881		1	CCGCAGATCCTTCTGTGTGATGTTTTTAAATTTAATATTATCTGAATACCTACC	50	
ID AAQ53881 standard; DNA; 2407 BP.					
xx					
ac		572	CCTCAGATCCTTCTGTGTGATGTTTTTAAATTTAATATTATCTGAATACCTACC	631	

Qy	61	AAATATATAGTAGACTTTGTCAAAGCTGGCAAGACTTCCAAATCGCGCAATACCAATAGAGA	120
Db	632	AAATATATAGTAGACTTTGTCAAAGCTGGCAAGACTTCCAAATCGCGCAATACCAATAGAGA	691
Qy	121	TCCAAACACCCTTAATATCATAAACAATCTGATGTGTAGTCCGAACATATNTGAGTAGTG	180
Db	692	TCCAAACACCCTTAATATCATAAACAATCTGATGTGTAGTCCGAACATATNTGAGTAGTG	751
Qy	181	AAACAATAGCACATTAACAATATCAGGAGTATTGGCTAACTCTGCAATTCAAATATCT	240
Db	752	AAACAATAGCACATTAACAATATCAGGAGTATTGGCTAACTCTGCAATTCAAATATCT	811
Qy	241	GATGCGTCTAATCTGGTCAATTTTATAGCGCTCCAGAAAGAAATGCACATCTCTGGACAT	300
Db	812	GATGCGTCTAATCTGGTCAATTTTATAGCGCTCCAGAAAGAAATGCACATCTCTGGACAT	871
Qy	301	GTGGGCATCGGAAGTGTGCAATGTTTTACATCTCTTATTAACGTAGCAAGAGTAGAT	360
Db	872	GTGGGCATCGGAAGTGTGCAATGTTTTACATCTCTTATTAACGTAGCAAGAGTAGAT	931
Qy	361	TATTTATGTCACGAGGAATCTCTCAGATCTTTCACATCTTCCACATGCATCTGCTGAAGAACAG	420
Db	932	TATTTATGTCACGAGGAATCTCTCAGATCTTTCACATCTTTCACATGCATCTGCTGAAGAACAG	991
Qy	421	ATACAGTGTACGTAGTTAGTTGTAATGACCGGTCAATGCCATTTCTCTGAAGGCATGTTCCAG	480
Db	992	ATACAGTGTACGTAGTTGTAATGTAAGGACGGTCAATGCCATTTCTCTGAAGGCATGTTCCAG	1051
Qy	481	AGATGATGATTTCTGGGATTCCTTGGAGGGGCCCTGAAATTCGGAACACAGTTAGTTGAGTT	540
Db	1052	AGATGATGATTTCTGGGATTCCTTGGAGGGGCCCTGAAATTCGGAACACAGTTAGTTGAGTT	1111
Qy	541	TTAGTACCTTAATGTCTTCGCTTATATACGTGGAATGCCATTTCTGTAAGCTGAGTTTTC	600
Db	1112	TTAGTACCTTAATGTCTTCGCTTATATACGTGGAATGCCATTTCTGTAAGCTGAGTTTTC	1171
Qy	601	TACCATTCTCACAGGAAATAAGCTAATAACCTGTCCAAGAGTGTGCGGCATTTGACCAA	660
Db	1172	TACCATTCTCACAGGAAATAAGCTAATAACCTGTCCAAGAGTGTGCGGCATTTGACCAA	1231
Qy	661	ATGAAGATCAAGAATGCGCAAAATGGCAATCTGGCAAGGAGCGGAATATATTTGAT	720
Db	1232	ATGAAGATCAAGAATGCGCAAAATGGCAATCTGGCAAGGAGCGGAATATATTTGAT	1291
Qy	721	TCTACTATACGACAGGAACCATATCAATGTTCGCCACAGCAAGGACCCCGCAGATAG	780
Db	1292	TCTACTATACGACAGGAACCATATCAATGTTCGCCACAGCAAGGACCCCGCAGATAG	1351
Qy	781	TTTCCTGTCTCCACAGCAGAAATCCGCACTGCATAGCTCCCAACANTGAATCCCAA	840
Db	1352	TTTCCTGTCTCCACAGCAGAAATCCGCACTGCATAGCTCCCAACANTGAATCCCAA	1411
Qy	841	ACCAATCCGGCTCAGAGAGATATGATAAAGGCATTAATCTGTAATTAATTTCTTACA	900
Db	1412	ACCAATCCGGCTCAGAGAGATATGATAAAGGCATTAATCTGTAATTAATTTCTTACA	1471
Qy	901	AGGCGAATAATAATAGCACCTTGACCTCCACACAGAGCTTGTGGATCGCATGTGCC	960
Db	1472	AGGCGAATAATAATAGCACCTTGACCTCCACACAGAGCTTGTGGATCGCATGTGCC	1531
Qy	961	CATGAATGGCAATCTGCACATCTGTGCATCTGTCAGAAATCTCTCGGAAAATGAGAGGCA	1020
Db	1532	CATGAATGGCAATCTGCACATCTGTGCATCTGTCAGAAATCTCTCGGAAAATGAGAGGCA	1591
Qy	1021	TAGCTTCGTGTGTGTGTGTGTGGGATATTAACGTGCTAAAACCTTTGTGTTCTGATCG	1080
Db	1592	TAGCTTCGTGTGTGTGTGTGTGGGATATTAACGTGCTAAAACCTTTGTGTTCTGATCG	1651
Qy	1081	ATCTGGTTAGAGAGCATGCTGTTTATAAGCACTTAAAAATGGTAGTATAATCTCTCAAGG	1140
Db	1652	ATCTGGTTAGAGAGCATGCTGTTTATAAGCACTTAAAAATGGTAGTATAATCTCTCAAGG	1711
Qy	1141	AGCCTACTCTGCCAAGAAAGGATAGCTTGGCCTCTGGCGGATTTGAGCCGTTGAGGGAAAC	1200

[illegible]


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Db 2936 CACGTAAGTCTACACTCAACCTAAGCTGTGAACGCTCTGTCTGGCCACGGTGAG 2877
      |||
Qy 1441 AATGCACCTAATGACGCGGACAACTCTCTTCCACGCTGCTACTGCTACATCCTGTAGAC 1500
      |||
Db 2876 AATGCACCTAATGACGCGGACAACTCTTCCACGCTGCTACTGCTACATCCTGTAGAC 2817
      |||
Qy 1501 GGTGACGCGTGAGTGCTTCCGCTGAGCGCTCTTGGTGTGCGAGTCACTTGGCGAC 1560
      |||
Db 2816 GGTGACGCGTGAGTGCTTCCGCTGAGCGCTCTTGGTGTGCGAGTCACTTGGCGAC 2757
      |||
Qy 1561 GCTTGCACGCTGACTCACTGCTGACATTCGCTGCGCGCGCTACAAAAGCCA 1620
      |||
Db 2756 GCTTGCACGCTGACTCACTGCTGACATTCGCTGCGCGCGCTACAAAAGCCA 2697
      |||
Qy 1621 CACAGGACGCGCGCCACGATACCCATCCCTAGCATCCGCGGTGTCACGACGAGATCCAT 1680
      |||
Db 2696 CACAGGACGCGCGCCACGATACCCATCCCTAGCATCCGCGGTGTCACGACGAGATCCAT 2637
      |||
Qy 1681 CAAGCGCTGCGCGATG 1695
      |||
Db 2636 CAAGCGCTGCGATG 2622
      |||

RESULT 11
AAD03878
ID AAD03878 standard; DNA; 6667 BP.
AC AAD03878;
DT 02-JUL-2001 (first entry)
DE NotI fragment of plasmid pADP73 comprising deacetylase coding sequence.
KW Deacetylase; hybrid seed; wheat; stamen selective promoter; maize; pea;
KW male-sterile cereal crop; chimeric; acetylated toxin; plasmid pADP73;
KW N-acetyl phosphinothricin; N-acetyl PPT; El promoter; NotI fragment;
KW Cauliflower mosaic virus; CaMV; rice; ds.
OS Chimeric - Stenotrophomonas sp.
OS Chimeric - Zea mays.
OS Chimeric - Agrobacterium tumefaciens.
OS Chimeric - Cauliflower mosaic virus.
OS Chimeric - Pisum sativum.
OS Chimeric - Unidentified.
OS Chimeric - Oryza sativa.
FH Key Location/Qualifiers
FT misc_feature 12..35
FT /tag= a
FT /note= "Left T-DNA border from pTIT37 of A. tumefaciens
FT misc_feature 77..130
FT /tag= b
FT /note= "Target sequence for frt/flip excision system"
FT promoter 137..1061
FT /tag= c
FT /label= Ubiquitin_promoter
FT exon 1062..1142
FT /tag= d
FT /number= 1
FT /note= "Exon of ubi gene"
FT intron 1143..2152
FT /tag= e
FT /number= 1
FT /note= "Intron of ubi gene"
FT 5'UTR 2174..2240
FT /tag= f
FT /note= "5' untranslated leader sequence from pea
FT cab22 gene"
FT CDS 2242..2853
FT /tag= g

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FT 3'UTR
FT /product= "Gentamycin acetyltransferase"
FT 2856..3090
FT /tag= h
FT /note= "Derived from CaMV 35S transcript"
FT misc_feature 3123..3176
FT /tag= i
FT /note= "Target sequence for frt/flip excision system"
FT promoter 3237..4923
FT /tag= j
FT /label= pEI_promoter
FT /note= "Derived from rice"
FT CDS 4938..6257
FT /tag= k
FT /product= "Stenotrophomonas sp. deacetylase (AAE00587)"
FT 3'UTR 6325..6520
FT /tag= l
FT /note= "Derived from CaMV 35S transcript"
FT misc_feature 6571..6548
FT /tag= m
FT /note= "Right T-DNA border from pTIT37 of A. tumefaciens
FT (counterclockwise)"
FT XX
FT XX
PN WO200129237-A2.
XX
XX 26-APR-2001.
XX
XX 13-OCT-2000; 2000WO-EP10281.
XX
XX 15-OCT-1999; 99US-0418817.
XX
XX (AVET ) AVENTIS CROPS SCIENCE NV.
XX
XX Quandt J, Bartsch K, Knittel N;
XX
XX WPI: 2001-290923/30.
XX P-PSDB; AAE00587.
XX
XX Producing conditionally male-sterile wheat plants by introducing into
XX genome of wheat cell or tissue foreign DNA having DNA molecule encoding
XX deacetylase under control of stamen selective promoter, regenerating
XX plants.
XX
XX Example 2; Page 49-51; 58pp; English.
XX
XX The invention relates to a method for producing male-sterile wheat
XX plants by transforming the wheat plant cell or tissue with chimeric gene
XX comprising DNA molecule encoding deacetylase from Stenotrophomonas sp.
XX deposit number DSM 9734 and a stamen selective promoter like CA55, T72
XX or El. The wheat plant is regenerated from cell, or tissue and acetylated
XX toxin (N-acetyl phosphinothricin referred as N-acetyl PPT) is applied to
XX the wheat plant to make it male sterile. The method is useful
XX for producing conditionally male-sterile cereal crops such as barley,
XX rye, oats and most particularly wheat. The conditionally male-sterile
XX plants can be used in wheat breeding to produce composite hybrid wheat
XX seed or pure hybrid wheat seed.
XX
XX The present sequence is a NotI fragment of plasmid pADP73 containing
XX a marker gene cassette and deac (deacetylase) gene expression cassette.
XX The marker gene cassette comprises ubiquitin promoter from maize
XX containing its first exon and first intron, linked to the 5' untranslated
XX leader sequence of the cab22 gene from pea, operably linked to the
XX gentamycin acetyltransferase (CAT) coding sequence and the 3'
XX untranslated (UTR) sequence from the cauliflower mosaic virus (CaMV) 35S
XX transcript. The whole marker gene cassette is flanked by frtI/frtII
XX sequences as part of the flip/firt excision system. The NotI fragment also
XX contains a deac gene expression cassette comprising the tapetum-specific
XX promoter El from rice operably linked to the deac coding sequence and
XX the 3' UTR from the CaMV 35S transcript. The complete insert is flanked
XX by left and right T-DNA border sequences from Ti-plasmid pTIT37 of
XX Agrobacterium tumefaciens.
XX
XX Sequence 6667 BP; 1644 A; 1675 C; 1612 G; 1736 T; 0 other;
XX
XX Query Match 99.7%; Score 1690.4; DB 22; Length 6667;

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PI Quandt J, Bartsch K, Knittel N;
 XX WPI: 2001-290923/30.
 XX
 XX Producing conditionally male-sterile wheat plants by introducing into
 PT genome of wheat cell or tissue foreign DNA having DNA molecule encoding
 PT deacetylase under control of stamen selective promoter, regenerating
 PT plants -
 XX
 XX Claim 8: Page 58; 58pp; English.
 XX
 XX The invention relates to a method for producing male-sterile wheat
 CC plants by transforming the wheat plant cell or tissue with chimeric gene
 CC comprising DNA molecule encoding deacetylase from *Stenotrophomonas* sp.
 CC deposit number DSM 9734 and a stamen selective promoter like CA55, T72
 CC or E1. The wheat plant is regenerated from cell or tissue and acetylated
 CC toxin (N-acetyl phosphinothricin referred as N-acetyl PPT) is applied to
 CC the wheat plant to make it male sterile. The method is useful
 CC for producing conditionally male-sterile cereal crops such as barley,
 CC rye, oats and most particularly wheat. The conditionally male-sterile
 CC plants can be used in wheat breeding to produce composite hybrid wheat
 CC seed or pure hybrid wheat seed.
 CC The present sequence is stamen selective promoter E1 promoter from
 CC rice.
 CC Note: The present sequence is described as a chimeric gene comprising
 CC deacetylase coding sequence and E1 promoter sequence throughout the
 CC specification. However, the sequence contains only the E1 promoter.
 XX
 XX Sequence 1687 BP; 502 A; 381 C; 354 G; 450 T; 0 other;

Query Match 99.5%; Score 1687; Length 1687;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 1687; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 604 CATCTCCACAGGAATAAAGCTTAATACCTGTCTCCAGAGTGGTGGGCAATTTGACCAAAATG 663
 DB CATCTCCACAGGAATAAAGCTTAATACCTGTCTCCAGAGTGGTGGGCAATTTGACCAAAATG 660
 QY 664 AAGATCAACAGCATGCGAAGATGCGAATCTGCGAAGAGCGGAATATATATGTTATCT 723
 DB 661 AAGATCAACAGCATGCGAAGATGCGAATCTGCGAAGAGCGGAATATATATGTTATCT 720
 QY 724 ACTACATCGAACAGGAACCATATCAATGTTGCCCGCCAGCAAGACCCCGCAGATAGTTTC 783
 DB 721 ACTACATCGAACAGGAACCATATCAATGTTGCCCGCCAGCAAGACCCCGCAGATAGTTTC 780
 QY 784 CTGTTCTTCCACAGCAGAAATATCCGAACTGCAATAGCTCCCAACAATGAAATCCAAACCC 843
 DB 781 CTGTTCTTCCACAGCAGAAATATCCGAACTGCAATAGCTCCCAACAATGAAATCCAAACCC 840
 QY 844 ACATCGGCTCAGAGAGAACTTATGATAAAGGACACTAAATCTGTAATAAATTTCTAGAAAG 903
 DB 841 ACATCGGCTCAGAGAGAACTTATGATAAAGGACACTAAATCTGTAATAAATTTCTAGAAAG 900
 QY 904 CGAATAATAATAGCACACCTTGACCTCCACCAAGAAGCTTGTGGATCGACTTGTGCCCAT 963
 DB 901 CGAATAATAATAGCACACCTTGACCTCCACCAAGAAGCTTGTGGATCGACTTGTGCCCAT 960
 QY 964 GAAATGGCATTTGACATTTCTGGTCACTGTCAAGATCTCTCGAAATGAGGAGCATAG 1023
 DB 961 GAAATGGCATTTGACATTTCTGGTCACTGTCAAGATCTCTCGAAATGAGGAGCATAG 1020
 QY 1024 CTTCTGCTGTATGTGTGGGATATTAGCTGCTGTAAGCTTTGTGTTCTCTGATCGATC 1083
 DB 1021 CTTCTGCTGTATGTGTGGGATATTAGCTGCTGTAAGCTTTGTGTTCTCTGATCGATC 1080
 QY 1084 TGGTTAGAGAGCATCTCTTATAGCAGCTTAAATGCTATATCTCTCAAGGAGC 1143
 DB 1081 TGGTTAGAGAGCATCTCTTATAGCAGCTTAAATGCTATATCTCTCAAGGAGC 1140
 QY 1144 CTATACTGCCAAGGAAGATAGCTTGGCTGTGGGATTTGAGCGCTTGAAGGGAACAAA 1203
 DB 1141 CTATACTGCCAAGGAAGATAGCTTGGCTGTGGGATTTGAGCGCTTGAAGGGAACAAA 1200
 QY 1204 CGAATACAGTTTACCTTACAGATGTTTGGCCACAGATGGGCAAGCTCATTTGCTAGACAA 1263
 DB 1201 CGAATACAGTTTACCTTACAGATGTTTGGCCACAGATGGGCAAGCTCATTTGCTAGACAA 1260
 QY 1264 GAAGCAAGGAAGCAAGTTTACCTTCAAAAAAGATATGCTAGAGGCTTTCCAGAAATATG 1323
 DB 1261 GAAGCAAGGAAGCAAGTTTACCTTCAAAAAAGATATGCTAGAGGCTTTCCAGAAATATG 1320
 QY 1324 TTCTATCTCAGCCAGACCAATGGGGGCAAAATTTACTATATTTGGCCATACATTAACCAAC 1383
 DB 1321 TTCTATCTCAGCCAGACCAATGGGGGCAAAATTTACTATATTTGCCATACATTAACCAAC 1380
 QY 1384 GTAAAGTCTTACACTCAACCTTAACCTTGTGAAGCGTCTCTTGGCCAAACGGTGAGAA 1443
 DB 1381 GTAAAGTCTTACACTCAACCTTGTGAAGCGTCTCTTGGCCAAACGGTGAGAA 1440
 QY 1444 GCAGCTAATGGAGGAGCAACACTTCTTCCAGCGTCTACTGCTACATCTCTGTAGACGCT 1503
 DB 1441 GCAGCTAATGGAGGAGCAACACTTCTTCCAGCGTCTACTGCTACATCTCTGTAGACGCT 1500
 QY 1504 GGAGCGCTGAGGTGCTTTTGGCGCATGACGCTCTTGTGTTGCTGCTGCTGCTGCTGCTGCT 1563
 DB 1501 GGAGCGCTGAGGTGCTTTGCGCATGACGCTCTTGTGTTGCTGCTGCTGCTGCTGCTGCT 1560
 QY 1564 TGCACCTGACTCAGCTGCCACATTGGCCCGCGCTGCGCGCGCTGCGCGCGCTGCGCGCGCT 1623
 DB 1561 TGCACCTGACTCAGCTGCCACATTGGCCCGCGCTGCGCGCGCTGCGCGCGCTGCGCGCGCT 1620
 QY 1624 ACGCAGCGCGCGCGCGCGCGCGCTGCGCGCGCTGCGCGCGCTGCGCGCGCTGCGCGCGCT 1683
 DB 1621 ACGCAGCGCGCGCGCGCGCGCGCTGCGCGCGCTGCGCGCGCTGCGCGCGCTGCGCGCGCT 1680

Oy 1684 GCCGTCG 1690
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Db 1681 GCCGTCG 1687

RESULT 13

AAF86443
ID AAF86443 standard; DNA: 365 BP.

XX AAF86443;
AC

XX 25-JUN-2001 (first entry)
DT

XX Deleted El promoter.
DE

XX Male sterile plant; RNAase inhibitor; El promoter; ds.
KW

XX Synthetic.
OS

XX WO200124616-A1.
PN

XX 12-APR-2001.
PD

XX 12-SEP-2000; 2000WO-JP06222.
PF

XX 30-SEP-1999; 99JP-0279307.
PR

XX (NLSB) JAPAN TOBACCO INC.
PA

XX Hamada K, Nakakido F;
PI

XX WPI; 2001-266212/27.
DR

XX Method for producing male sterile rice and maize by inserting RNAse
PT gene and RNAse inhibitor genes with promoters into the plant genome -

XX Claim 8; Page 25; 29pp; Japanese.
PS

XX The present invention relates to a method for producing male sterile
CC plants. The method comprises inserting a promoter fragment upstream of an
CC RNAse gene and a second promoter, upstream of an RNAse inhibitor protein
CC gene and inserting it into the plant genome. The method is useful for
CC producing male sterile tobacco, lettuce and rapeseed plants, but,
CC preferably rice and maize. The present sequence is a deleted El promoter,
CC which was used in the method of the present invention.
XX

XX Sequence 365 BP; 86 A; 119 C; 82 G; 78 T; 0 other;
SQ

Query Match 21.5%; Score 365; DB 22; Length 365;

Best Local Similarity 100.0%; Pred. No. 1e-102;

Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1331 TCAGCCAGACCAATGGGGGCAAAATTTACTACTATTGGCCATACATTAAACCGTAAAG 1390

Db 1 TCAGCCAGACCAATGGGGGCAAAATTTACTACTATTGGCCATACATTAAACCGTAAAG 60

Oy 1391 TCCTACACTCAACTACTCTTGAACGGTCCCTGCTGCGCAACGGTGAGATGCACCTA 1450

Db 61 TCCTACACTCAACTACTCTTGAACGGTCCCTGCTGCGCAACGGTGAGATGCACCTA 120

Oy 1451 ATGGACGGGCAACACATCTTTCCACCGTGCTACTGCTACATCTCTAGACGGTGACGCG 1510

Db 121 ATGGACGGGCAACACATCTTTCCACCGTGCTACTGCTACATCTCTAGACGGTGACGCG 180

Oy 1511 TGAGGTGCTTTGGCCATGACCGTCCCTTGGTGTGTCAGTCACTTGGCAGCGTTGCACCG 1570

Db 181 TGAGGTGCTTTGGCCATGACCGTCCCTTGGTGTGTCAGTCACTTGGCAGCGTTGCACCG 240

Oy 1571 TGACTCACTGCCACATTTGCCCGCGCGTCCGCGCGCTACAAAAGCCACACGCGACG 1630

Db 241 TGACTCACTGCCACATTTGCCCGCGCGTCCGCGCGCTACAAAAGCCACACGCGACG 300

Oy 1631 CCGGCGCAGGATACCCCATCTAGCATCCCGGTGTCAGCAGAGATCCATCAAGCCGTCG 1690

Db 301 CCGGCCAGATAACCCATCCTAGCATCCCGGTGTCAGCAGAGATCCATCAAGCCGTCG 360
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Oy 1691 CGATG 1695

Db 361 CGATG 365
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RESULT 14

AAF86439/C

ID AAF86439 standard; DNA: 5228 BP.

XX AAF86439;
AC

XX 25-JUN-2001 (first entry)
DT

XX Plasmid pTSL72delta.
DE

XX Male sterile plant; RNAase inhibitor; plasmid pTSL72delta; ds.
KW

XX Unidentified.
OS

XX WO200124616-A1.
PN

XX 12-APR-2001.
PD

XX 12-SEP-2000; 2000WO-JP06222.
PF

XX 30-SEP-1999; 99JP-0279307.
PR

XX (NLSB) JAPAN TOBACCO INC.
PA

XX Hamada K, Nakakido F;
PI

XX WPI; 2001-266212/27.
DR

XX Method for producing male sterile rice and maize by inserting RNAse
PT gene and RNAse inhibitor genes with promoters into the plant genome -

XX Disclosure; Page 14-17; 29pp; Japanese.
PS

XX The present invention relates to a method for producing male sterile
CC plants. The method comprises inserting a promoter fragment upstream of an
CC RNAse gene and a second promoter, upstream of an RNAse inhibitor protein
CC gene and inserting it into the plant genome. The method is useful for
CC producing male sterile tobacco, lettuce and rapeseed plants, but,
CC preferably rice and maize. The present sequence is a vector used in
CC the method of the present invention.
XX

XX Sequence 5228 BP; 1384 A; 1307 C; 1263 G; 1274 T; 0 other;
SQ

Query Match 21.5%; Score 365; DB 22; Length 5228;

Best Local Similarity 100.0%; Pred. No. 4.9e-102;

Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1331 TCAGCCAGACCAATGGGGGCAAAATTTACTACTATTGGCCATACATTAAACCGTAAAG 1390

Db 2986 TCAGCCAGACCAATGGGGGCAAAATTTACTACTATTGGCCATACATTAAACCGTAAAG 2927

Oy 1391 TCCTACACTCAACTCACTGTGTGAACGGTCCCTGCTGCGCAACGGTGAGATGCACCTA 1450

Db 2926 TCCTACACTCAACTCACTGTGTGAACGGTCCCTGCTGCGCAACGGTGAGATGCACCTA 2867

Oy 1451 ATGGACGGGCAACACATCTTTCCACCGTGTCTGCTACATCTCTAGACGGTGACGCG 1510

Db 2866 ATGGACGGGCAACACATCTTTCCACCGTGTCTGCTACATCTCTAGACGGTGACGCG 2807

Oy 1511 TGAGGTGCTTTGGCCATGACCGTCCCTTGGTGTGTCAGTCACTTGGCAGCGTTGCACCG 1570

Db 2806 TGAGGTGCTTTGGCCATGACCGTCCCTTGGTGTGTCAGTCACTTGGCAGCGTTGCACCG 2747

Oy 1571 TGACTCACTGCCACATTTGCCCGCGCGTCCGCGCGCTACAAAAGCCACACGCGACG 1630

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Db 2746 TGACTACCTGCCACATTGCCCGCGCGCTGCGCGCCCTACAAAAGCCACACGCACG 2687
QY 1631 CGGGCCAGCATAAACCATCTAGCATCCCGGTGTCCAGCAAGAGATCCATCAAGCGCTCG 1690
Db 2686 CGGGCCAGCATAAACCATCTAGCATCCCGGTGTCCAGCAAGAGATCCATCAAGCGCTCG 2627
QY 1691 CGATG 1695
Db 2626 CGATG 2622
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RESULT 15
AAC37958/c
ID AAC37958 standard; DNA; 1039 BP.
XX
AC AAC37958;
XX
DT 17-OCT-2000 (first entry)
XX
DE Arabidopsis thaliana DNA fragment SEQ ID NO: 19277.
XX
KW Hybridisation assay; genetic mapping; gene expression control;
KW protein identification; signal transduction pathway;
KW metabolic pathway; promoter; termination sequence; ss.
XX
OS Arabidopsis thaliana.
XX
PN EP1033405-A2.
XX
PD 06-SEP-2000.
XX
PF 25-FEB-2000; 2000EP-0301439.
XX
PR 25-FEB-1999; 99US-0121825.
PR 05-MAR-1999; 99US-0123180.
PR 09-MAR-1999; 99US-0123548.
PR 23-MAR-1999; 99US-0125788.
PR 29-MAR-1999; 99US-0126264.
PR 01-APR-1999; 99US-0126785.
PR 06-APR-1999; 99US-0127462.
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PR 21-APR-1999; 99US-0130077.
PR 23-APR-1999; 99US-0130449.
PR 28-APR-1999; 99US-0130510.
PR 30-APR-1999; 99US-0130891.
PR 04-MAY-1999; 99US-0131449.
PR 05-MAY-1999; 99US-0132407.
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PR 07-MAY-1999; 99US-0132485.
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PR 01-JUN-1999; 99US-0137222.
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PR 09-AUG-1999; 99US-0147493.
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PR 22-OCT-1999; 99US-0160981.
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PR 28-OCT-1999; 99US-0161992.
PR 28-OCT-1999; 99US-0161993.
PR 29-OCT-1999; 99US-0162142.

Query Match 4.5%; Score 77; DB 21; Length 1039;
Best Local Similarity 57.1%; Pred. No. 5.8e-13;
Matches 140; Conservative 0; Mismatches 105; Indels 0; Gaps 0;
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QY 674 GCATGGCAAGAATGGCAATCTGGCAAAAGGAGCGGAATTATATTGTATTCTACTACATCGA 733
Db 415 CGAGAGCAAGAATTGAATGTGCGCCGAGAGTGTGAGAAGATTGTACTCAAGTAACCTCGA 356
QY 734 ACAGGAACCATATCAATGTGTGCCCCAGCAGGAGCCCGCAGATAGTTCTCTGTTCTTCC 793
Db 355 ATAAGATCCAGGAACAGTTGCGAGCACCAATACTCCTCTGATATCTTTCTTTCTTCTCTCC 296
QY 794 ACAGCAGAATATCCGAACCTGCATAGCTCCCAACAATGAATCCAAAAACACATCGGCTC 853
Db 295 ACAGGAATATGTCGCGAGGTTTCCGCCACCCGAAAGCTTGTGAAGAGGCTGTTCCTTC 236
QY 854 AGAGA 858
Db 235 CGAAA 231

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